Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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Facilitating the Deployment of Text-to-911	)	PS Docket 11-153
and Other Next Generation 911 Applications	)	
	)	
Framework for Next Generation 911	)	PS Docket 10-255
Deployment	)	
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COMMENTS OF TWILIO INC.

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Twilio Inc. ("Twilio") submits these comments in response to the Federal Communications Commission's Notice of Proposed Rulemaking on Next Generation 911 ("NG911"). *See* Notice of Proposed Rulemaking, PS 11-153; PS 10-255 (Sept. 22, 2011).

I. INTRODUCTION

Twilio welcomes the opportunity to discuss NG911. The Commission should encourage the development of NG911 products and services using all available modes of communication, including SMS messaging and next generation technologies, through rules and standards that are technology neutral and encourage interoperability. The development of NG911 products and services is of interest to Twilio because Twilio is being used by over 70,000 developers to create innovative telecommunications applications and services. Twilio is enabling developers to create mobile applications and integrate voice and text messaging into existing and new products, among other exciting possibilities. With technology-neutral rules, new companies like Twilio and the many companies that use Twilio would be encouraged to develop new NG911 products to the benefit of the public. Twilio encourages the Commission to empower new companies to develop the next generation of NG911 products and services.

II. TWILIO

Twilio was founded three years ago as an innovative Internet-based cloud communications company that is reinventing telecom by merging cloud computing, web services, and traditional telecommunications. Twilio hosts a telephony infrastructure web service in the cloud, allowing web developers to integrate phone calls, text messages, and IP voice communications into their web, mobile, and traditional phone applications. Using Twilio, a company can integrate each of these different communication methods

into a single product. In short, Twilio takes things that are complicated about telecommunications and makes them simple.

Using Twilio's simple developer tools, web developers and businesses can build sophisticated unified communications solutions such as call centers, office phone systems, call tracking tools, and more that interoperate with multiple telephone networks. Twilio's service integrates with traditional phone service and text messages/SMS using Twilio's existing web service APIs for making and receiving phone calls and text messages. One of Twilio's products, Twilio Client, also allows web developers to build Skype-like voice capabilities with just a few lines of code. Twilio's products work simultaneously across platforms, allowing web browsers, mobile phones, and tablets running iOS or Android to communicate seamlessly. Over 70,000 developers use Twilio to integrate telecommunications into their applications and products. Finally, Twilio is quickly expanding internationally, having recently announced launches in England and Europe.

By making telecommunications integration in web, mobile, and app products easy for developers, Twilio benefits consumers by providing them with a host of new products and services that otherwise would not be possible. Many companies and organizations are using Twilio to simplify their telecommunications needs to the benefit of their customers and users. For example, Intuit Inc. used Twilio to develop a new security feature which sends a verification code to the an online user's phone, via phone call or SMS, when an online user attempts to change sensitive data. This minimally intrusive security feature prevents identity theft while relying on the cloud to save time and money in implementation. With regard to NG911, given Twilio's ability to integrate

into the existing telecommunications system, Twilio's software and services could be used to quickly and easily create NG911 applications and products.

In short, Twilio is part of a new generation of companies involved in telecommunications that are benefiting consumers by enabling innovative new applications, products, and services. By allowing developers to easily integrate telecommunications into their products and applications, Twilio is an important and unique part of the mobile ecosystem. With the proper regulatory incentives, Twilio can be part of the development of NG911 because it will allow companies to develop new products and services that allow innovative ways of contacting and communicating with emergency services.

III. COMMENTS

Twilio commends the Commission for encouraging the development of NG911 products and services. The Commission should ensure that the rules and standards it eventually adopts are technology-neutral so that as many private companies as possible have the incentive to create and market NG911 applications and services. The "next generation" NG911 application may not have even been created yet, and the Commission should do everything it can to encourage companies to develop it.

A. Short Term Deployment of Text-to-911

Twilio strongly encourages the Commission to authorize and support text-to-911 services as part of its commitment to NG911. Although the Commission cites a number of technology concerns, those concerns can be overcome through technology-neutral rules that allow companies to innovate and create NG911 text message services and applications. By setting rules that allow technology to operate freely, the Commission will encourage NG911 while minimizing costs. With technology-neutral

rules, companies will be incentivized to create new and interesting services that must be marketable to public safety officials. The Commission should encourage this type of development through rules that would allow new players to contribute to NG911 technology. The Commission should certainly set standards to ensure reliability and accuracy in contacting emergency services, but should endeavor to otherwise support private development by all companies.

Using Twilio, for example, a company could conceivably create a text-to-911 product that could be sold to PSAPs that would facilitate the use of text messaging to obtain emergency services. Likewise, a company could create an application for smart phones and feature phones alike that allows the mobile phone user to send text messages to PSAPs that is designed to seamlessly integrate with the technology already used by the PSAP. What is critical in either scenario is that the FCC makes sure to allow companies like Twilio the opportunity to develop such products and applications.

The Commission should not necessarily be concerned that the development of text-to-911 services and products may be short-term. SMS is one of the most prevalent forms of communication today and will remain so for the foreseeable future. Messaging will evolve as technology evolves and the applications and products using messaging should be integrated into NG911 systems.

Moreover, the encouragement of text-to-911 products and services will only ensure that the next generation of NG911 products and services is already familiar to the general public. As the NG911 technology advances, the general public will see advancements as an evolution of how to contact emergency services, rather than brand-new and unfamiliar. Additionally, the public's familiarity with both voice calls to 911

and with text messaging would make text-to-911 an ideal method to begin developing

supplemental methods of contacting emergency services. The average mobile phone user

is certainly very familiar with text messages, and that familiarity and use of text messages

to contact 911 means that it will not be difficult to migrate to the next iteration of NG911

products when they are ready.

Finally, Twilio believes that the Commission should exercise its authority

over numbering resources and mandate that "9-1-1" is the universal number for text-to-

911. The general public is already familiar with "9-1-1" as the means to contact

emergency services and there is no technical reason that "9-1-1" could not be used as the

number for text message services. "9-1-1" is simply an address. Consistency in the

experience in contacting emergency services is key to NG911. Advances in NG911

could face setbacks if the general public is confused by how to use the advanced services

to contact emergency services. Additionally, the Commission has the ability to exercise

authority over numbering resources and should do so whenever the public would benefit.

B. Long-Term Deployment of NG911 Text and Multimedia Applications

Similar to text-to-911, long-term deployment of more advanced NG911

services should be encouraged by the Commission through a technology agnostic

approach that encourages companies to develop new product and services. The

Commission's goal should be to encourage private sector investment in NG911 to

unleash the creativity of innovative companies. The standards that the Commission sets

for NG911 long-term deployment should, of course, ensure reliable and accurate

emergency services communications, but should not choose winners and losers among

the available technology. Indeed, the path of NG911 may be influenced by new companies and technologies that have not even been created yet.

The Commission should ensure interoperability among all types of applications, products, and services for NG911. Just as an individual can contact emergency services through a landline phone, wireless phone, or interconnected VoIP phone, the advanced services being contemplated for NG911 should be just as interoperable. The Commission has a long history of integrating new technologies into the public safety system, such as interconnected VoIP. Additionally, the system has been competitive and open enough to allow numerous companies to develop 911 products and services. Intrado, for example, has had great success as a developer of emergency communication products and services. The success of companies like Intrado should be built upon as the Commission evaluates how to encourage NG911. The Commission's focus should be on encouraging other companies to develop and create new NG911 products and services in an atmosphere of competition and inventiveness.

C.   **Commission Role in Facilitating NG911**

The Commission's role should be incentive focused to encourage companies to create NG911 applications and services. By setting standards that are technology agnostic and encourage interoperability, the Commission can create incentives to developing innovative NG911 products. The companies that develop these new NG911 products must make them marketable, thus, incentive-based rules going forward will also ensure that costs are appropriate and reasonable to PSAPs.

IV. CONCLUSION

In sum, Twilio strongly supports the Commission's efforts on NG911 and encourages the Commission to ensure that any company with a good, marketable idea about NG911 has the ability to develop new NG911 products and services. The Commission should work towards technology-neutral rules and standards that would allow many different technologies to communicate with emergency services.

Dated: December 12, 2011   Respectfully submitted,

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